MANITOBA

ANNUAL REPORT

1983

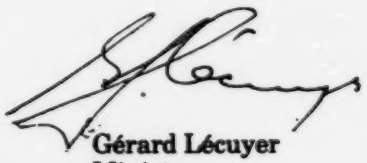
The
Clean Environment
Commission

Her Honour,
The Honourable Pearl McGonigal,
Lieutenant-Governor of Manitoba,
Room 235 Legislative Building,
WINNIPEG, Manitoba.
R3C 0V8

Your Honour:

The undersigned has the honour to present the Annual Report of The Clean Environment Commission detailing its activities for the year ending December 31st, 1983.

Yours sincerely,



Gérard Lécuyer
Minister

The Honourable Gerard Lecuyer,
Minister of Environment and Workplace
Safety & Health,
Room 333 Legislative Building,
WINNIPEG, Manitoba.
R3C 0V8

Dear Mr. Lecuyer:

Pursuant to the provisions of Section 11 of The Clean Environment Act, The Clean Environment Commission herewith transmits to you as Minister responsible, its Annual Report.

Section 11(1) of The Clean Environment Act provides that the annual report of the Commission shall include:

(a) the investigations and hearings conducted by the Commission;

(b) the orders made;

(c) regulations made under this Act;

(d) a review of the state of the environment;

(e) such other matters as the minister may require.

In the discharge of its responsibilities under that subsection of the Act, The Clean Environment Commission is pleased to submit the particulars set forth in the following pages of its Annual Report for the year ending December 31st, 1983.

Submitted on behalf of the
Commission.

Stan Eagleton,
Chairman.

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Chairman's Message

The report of The Clean Environment Commission provides an account of the hearings and investigations undertaken by the Commission during 1983, and of the orders issued by the Commission to regulate the emission of contaminants for the purpose of the protection and improvement of the environment in this Province.

Public involvement in the work of the Commission is a provision of The Clean Environment Act under which the Commission operates. The hearings provide an opportunity for direct public participation in the considerations of the Commission and such input is frequently an important factor in the decision-making process.

During the year, the Commission commenced its involvement in public hearings on hazardous and special waste management. The establishment of such a program in Manitoba — which may include the eventual construction of special treatment and disposal facilities within the Province — is an extremely important undertaking which will fill an urgent need and respond to rising public concern. As this program develops, there is no doubt that public interest will increase. Public participation in the entire process has been identified as a key element. The Commission looks forward to its continuing involvement in this process.

Yours sincerely,

Stan Eagleton,
Chairman.

The Clean Environment Commission

The Clean Environment Commission is a quasi-judicial body appointed by order-in-council under the terms of The Clean Environment Act (Chapter C130 of the Consolidated Statutes of Manitoba), which stipulates that the Commission shall consist of not less than three members, so appointed.

The present Commission consists of seven Manitoba citizen appointees under a full-time chairman, working with the support of a secretariat staff of four. The Commission reports to the Minister responsible for the administration of The Clean Environment Act. During most of the year, the Honourable Jay Cowan served in this capacity as Minister of Environment and Workplace Safety & Health. In November, the Honourable Gerard Lecuyer became the Minister to whom the Commission reports, on his appointment as Minister of this Department.

The present Commission membership was appointed effective February 23, 1983, and is as follows:

Mr. Stan Eagleton, Civil Servant, Winnipeg, Chairperson
*Ms. Cathy Auld, Community Worker, Winnipeg, Vice-Chairperson
**Mrs. Judy Lord, Free Lance Writer, Winnipeg, Vice-Chairperson
Mr. Robert Boucher, Environmental Consultant, Lorette, Commissioner
Prof. Raymond Chant, Professor, University of Manitoba, Commissioner
Mr. Peter Ducheck, Farmer, Lockport, Commissioner
Mrs. Jeanette Goertzen, Community Worker, Brandon, Commissioner
Mrs. Mamie Hendren, Nurse's Aide, Thompson, Commissioner
Dr. Barrie Webster, Professor, University of Manitoba, Commissioner

The membership in January and February, 1983, was as follows:

Mr. Stan Eagleton, Civil Servant, Winnipeg, Chairperson
Mr. Harry Sleigh, Retired, Winnipeg, Vice-Chairperson
Mr. Ray Chant, Professor, University of Manitoba, Commissioner
Mr. Gerald Morrow, Pharmacist, Melita, Commissioner
Mr. John Vaags, Farmer, Dugald, Commissioner
Mr. Richard Whidden, Lawyer, Thompson, Commissioner.

*Ms. Auld resigned as of June, 1983.
**Mrs. Lord was appointed effective October 5, 1983.

Background and Responsibilities

Fifty years ago in Manitoba, the principal legislation dealing with environmental matters was The Public Health Act. However, in the mid-30's low water conditions in the Red River made it apparent that corrective action was needed to ameliorate pollution problems being created by the discharge of sewage into the Red and Assiniboine Rivers in the Greater Winnipeg Region. In response to these problems, The Prevention of Water Pollution Control Act was enacted by the Provincial Government in 1935. This resulted in the appointment of the Provincial Sanitary Control Commission with jurisdiction to regulate water pollution problems. This Commission continued its operation until 1968 and, during its thirty-three years of operation, it issued 150 licences to limit individual sources of water pollution.

During the 60's, public realization of the impact of human activities on the environment brought about a more comprehensive approach to environmental protection. In 1968, the Province passed The Clean Environment Act to regulate not only contamination of the Province's waters but also its air and land. This Act also brought The Clean Environment Commission into being. The principal responsibilities of The Clean Environment Commission included a licencing function to issue orders to regulate the emission of contaminants to the environment. This jurisdiction extended to all operations, industries, and utilities whether operated by the private sector, by municipal authorities, or by the Provincial Government. The Commission also had jurisdiction to carry out investigations of matters affecting the environment and to issue orders to prevent or clean up contamination incidents.

Public participation is a major principle incorporated in The Clean Environment Act and in the functioning of The Clean Environment Commission. Public hearings are prescribed in circumstances where any person who is likely to be affected by one of the Commission's licences or orders wishes to make a representation. In addition, provision is made for the Commission to hold hearings in connection with its investigations, to ascertain compliance with the orders and regulations issued under the Act, to extend suspension of orders beyond a fourteen day period, and to review applications of municipalities following their approval of abatement projects.

Programs and Activities

Meetings and Hearings

Throughout 1983, the Commission held twenty-three business meetings in order to deal with matters relating to its responsibilities under The Clean Environment Act. In addition, twenty-eight public hearings were held in various parts of the Province in order to provide for public participation in the Commission's activities.

A number of categories can be identified to illustrate the matters under consideration at these hearings. Ten hearings were held in response to requests by persons likely to be affected by industrial or municipal activities proposed to have limits, terms and conditions prescribed by the Commission in an order. A further nine hearings were undertaken to deal with requests for variation of the terms of orders previously issued by the Commission. Two were held to ascertain compliance by existing operations with environmental orders and regulations, while a further four hearings were held to review orders previously appealed to the Minister by persons affected. Three hearings were carried out to investigate matters affecting the environment, in response to requests or directions received from the Minister in connection with his responsibilities for supervision and control of the environment. The hearings were carried out in thirteen different locations of the Province including Balmoral, Brandon, Carman, Dauphin, Flin Flon, Gretna, MacGregor, Portage la Prairie, St. Adolphe, Stonewall, Strathclair, Winnipeg Beach, and Winnipeg.

Protection of the Environment

General

Environmental legislation in many jurisdictions throughout North America evolved from public health acts which were designed to provide water of suitable quality to prevent water borne disease. For this reason, environmental legislation has developed in many states and provinces in the form of a series of separate acts to protect water and air, and to regulate the pollution of land. In Manitoba, The Clean Environment Act is a comprehensive piece of legislation providing authority which extends to the protection of all of the natural environment against contaminants, including all substances foreign to or in excess of natural constituents of the environment as well as those elements which might affect the natural physical, chemical, or biological quality of the environment or that can be injurious to health, damaging to property or plant or animal life. In addition, any quality or contaminant that is likely to interfere with the normal conduct of business or

with the comfort, well-being or enjoyment of a person is regulated by the provisions of this Act.

Under the Act, two methods are provided for prescribing limits, terms and conditions on the emission of contaminants to the environment. The first method is the making of regulations to control a number of materials or operations affecting the environment. The regulations already issued by the Government are listed elsewhere in this report. Principal matters regulated in this manner include the private use of insecticides, the handling and storage of petroleum, the operation of small private sewage systems and the operation of municipal and private waste disposal grounds.

The second method of environmental control is the issuance of orders by The Clean Environment Commission prescribing limits, terms and conditions on the emission of contaminants to the environment. The Clean Environment Act requires the Commission to issue such orders in all instances where the Environmental Management Division refers to it applications or proposals received concerning matters not already covered by the regulations. The Commission advertises the operations outlined in the applications or proposals and, on receipt of requests from the public, the Commission holds public hearings prior to the issuance of orders. In cases where no objections are received, the Commission may issue an order without a hearing or it may hold a public hearing to ensure that the proposed operation receives appropriate public exposure. The Commission considers all relevant evidence and issues orders prescribing limits, terms and conditions regulating the emission of contaminants for each operation that is considered.

Any affected party can appeal the order to the Minister within thirty days or, if new evidence is brought forward, a hearing for possible variation may be considered by the Commission.

Air Pollution Control

Early in 1983, the Commission considered a proposal by Riverside Gravel Company Limited to establish a new limestone quarry in the Rural Municipality of Rockwood. The Commission received a report on the proposed operation from the Environmental Control Services Branch of the Environmental Management Division. Following advertisement, a number of representations by affected persons were received and the Commission held a public hearing at Stonewall. During the hearing, presentations were received from the applicant, the Rural Municipality of Rockwood, and from a number of citizens who expressed concern about the opening of an additional quarry in a region where the environmental effects of quarrying activities have given rise to expressions of concern in previous years, about noise, vibration, and dust. The Commision also received an environmental report with recommendations by an officer of the Manitoba Department of Environment and Workplace Safety and Health and evidence from officials of the Provincial Mines Branch and the Municipal Planning Branch. The Commission's order included limits on the noise of normal operations and on the sound and soil vibrations from blasting, the prohibition of blasting at night and on Sunday, a limit on the emission of particulates, and limits on dust and smoke levels beyond the property line of the operation. The order also contained restrictions on burning, on quarrying below the water table, on the storage of petroleum products in or near the quarry, as well as a requirement for good equipment maintenance and housekeeping practices within the operation.

Two orders were issued in 1983 regulating emissions from foundry operations. The Teledyne Canada Bell Foundry in the East Elmwood district of Winnipeg was upgraded by the introduction of a coreless electric induction furnace and the use of a relatively pollution-free technique for the preparation of casting molds. As no representations were received from persons who might be affected, a hearing was not held and the Commission issued a new order prescribing limits on particulate, odour and noise emissions to the environment from the operation of the modernized plant. Similarly, a proposal was received for the operation of the enlarged Heritage Industries Ltd. iron foundry in Winkler. This operation also consisted of a coreless electric induction furnace used for the smelting of gray iron to produce castings. After having received no notice of representation, the Commission issued an order to Heritage Industries Ltd. containing limits, terms and conditions much like those prescribed for Teledyne Canada Limited.

Proposals were received concerning air pollution control on the emission of dust, noise and odours from the operations of grain handling and processing facilities at the Border Grain Company Limited and Gretna Feed & Seed Co. Ltd. seed cleaning plants in Gretna. Following receipt of notices of representations, the Commission held a public hearing in Gretna. Representations were received from the Council of the Village and local residents because of the proximity of the plants to residences and other businesses within the Village and the impact of dust from the operations. An order was issued prescribing limits, terms and conditions on the emission of particulate matter to the environment from these operations.

A further example of air pollution control is the Commission's order dealing with the Steel Brothers Canada Limited limestone crushing and handling facility on Pembina Highway in Winnipeg. The terms of a varied order on the existing operation required the Company to obtain the services of a specialist consultant for the purpose of reviewing its air pollution control systems. The Commission held a new hearing in the spring of 1983 for the purpose of receiving evidence concerning the consultant's report and to consider the issuance of another varied order. At the hearing, evidence was received concerning the upgrading of aspects of the plant operation resulting in reduced dust emissions. There were also continuing complaints from two nearby businesses. The Commission issued a varied order which prescribed limits on dust emissions and the adoption of measures and procedures to improve dust control. The applicant subsequently filed an appeal with the Minister, concerning the terms of this order.

During 1982, the Commission held a hearing and issued an order to the Simplot Chemical Company Ltd. plant at Brandon concerning the emission of contaminants to the atmosphere including sulphur dioxide, oxides of nitrogen, particulate matter and ammonia. Prior to the end of 1982, the Company filed an appeal on the terms of the order with the Minister. In consideration of the circumstances of Simplot's appeal, the Minister directed the Commission to vary the order, as approved by Order-in-Council. This variation modified certain requirements of the order extending the deadline by which the Company was required to install a monitoring station to detect airborne ammonia and deleting a requirement for the establishment of a Company/Community Committee. In place of the establishment of a committee, the Commission was directed to hold a progress review hearing in July 1983. The Commission was also directed to review the Company's progress and ability to achieve compliance with the terms of the order later in the year. At both hearings, much of the discussion centred on the limit for ammonia emission of two parts per million as measured in the ambient air of a residential district in Brandon. This limit had been the subject of objections by the Company in the hearing held the previous year. The Company maintained its position that, in spite of improvements it was making in the operation, it would not be in a position to comply at all times with the two parts per million limit. Representations were received from residents to the effect that, while obvious improvements continued to be made by the Company throughout 1983, every effort should be made to achieve compliance with the limits as prescribed in the order. At year end, the Commission was considering the report and recommendations it would submit to the Minister in connection with this matter.

Insecticide Use

A number of orders issued by the Commission during 1983 had to do with the regulation of insect control programs. For example, two of these were issued to the Parks Branch for the use of insecticides on a restricted basis, to control mosquitoes at Hecla Island Provincial Park Golf Course and at the Winnipeg Folk Festival at Bird's Hill Park near Winnipeg.

The City of Brandon requested a variation of the order under which it had been operating its comprehensive mosquito control program over a number of years. The City requested the addition of a number of park locations where occasional fogging might take place and the addition of the insecticide Baygon for use in spraying such locations against adult mosquitoes prior to the holding of special events. Also requested was an expansion of the area around the City where larviciding was routinely carried out as the principal control measure against mosquito infestation. Brandon has a comprehensive and effective mosquito abatement program run by students from the University of Brandon under the supervision of a committee, which includes professional biologists connected with the University. Mosquito breeding areas were identified to optimize the larviciding programs. Adulticide fogging was limited to control mosquitoes for special events in parks and recreational areas and was not carried out in residential areas. Following the hearing, the Commission issued a new order prescribing limits, terms and conditions in accordance with the revised program as requested by the City.

Another hearing was held by the Commission in connection with representations received concerning a proposed program for the control of adult mosquitoes and black flies at the Manitoba Hydro Limestone construction site. The hearing, held at the company's Sundance townsite, was attended by almost all the residents. The large majority of those present indicated their strong support for an abatement program which they considered was necessary owing to the special circumstances of northern living where hordes of mosquitoes and black flies descend on residents from the nearby bush and render outdoor activity virtually impossible for both children and adults during the periods the insects are active. However, one or two residents had concerns about the use of insecticides in circumstances where the efficacy would probably not guarantee complete abatement of the admittedly severe nuisance problems. The Commission issued an order prescribing limits, terms and conditions and also required a report

on the efficacy of insecticide use. This report, which was received by the Commission before the end of 1983, indicated that, while some relief had been obtained from the biting of nuisance mosquitoes following the repeated fogging operations, these operations had no beneficial effect on the large numbers of black flies present during daytime hours.

Also during 1983, an order was issued to the City of Thompson in connection with the use of chemicals for its mosquito larviciding campaign. The City had, for many years, carried out a larviciding program adjacent to the City and had recently considered the possibility of conducting a fogging program to control adult mosquitoes. The City decided during 1983 not to apply for a program of fogging or spraying for the control of adult mosquitoes and black flies. Further study on the development of a suitable comprehensive program was being undertaken with the assistance of the Canada Biting Fly Centre located at the University of Manitoba.

Water Pollution Control

The majority of the orders issued for water pollution control during 1983 were related to the operation of municipal sewage treatment facilities such as the new sewage lagoons in the communities of Lowe Farm, Roland, Rosenort, and Goodlands. Orders were also issued for similar facilities in the more remote locations of Cross Lake and Camperville.

The Commission also dealt with a proposal for the Tantalum Mining Corporation of Canada Limited operation at Bernic Lake, covering the recent substantial expansion of mill capacity and a proposed development of a spodumene concentrator plant. Also considered was the existing facility for the production of tantalum concentrate, with discharge of mine water and mill process water and tailings into the authorized tailings disposal area and the drainage of liquid effluent into Bernic Lake. The expansion proposal had been filed, notwithstanding that the mine was temporarily closed, in order to obtain licencing clearance for use of the whole plant when full operation once again become feasible. A new order was issued prescribing limits on effluent, suspended matter, and pH, as well as prescribing a schedule of effluent sampling, monitoring and analysis.

A hearing was held at Flin Flon concerning the operation of Hudson Bay Mining and Smelting Co., Limited's new mine at Spruce Point on the south shore of Reed Lake. The Commission also held a hearing in Flin Flon in connection with liquid effluent from the tailings pond, at the Company's main metallurgical complex at Flin Flon.

The Commission had issued a previous order dealing with the effluent discharge from Spruce Point during the development stage of that mining operation. That order required the Company to discharge effluent from the operation outside the Reed Lake drainage. This was accomplished by pumping the effluent through a pipeline to the discharge point south of Highway 391. It had been intended that drainage from the discharge point would continue southward; however, subsequent studies showed that the discharge point was still within the Reed Lake drainage basin. At the hearing, representatives of the Environmental Management Division and also local representatives advocated that the mine water should be treated to meet standards of the Canada Metal Mining Liquid Effluent Regulations and that this effluent should be discharged out of the Reed Lake watershed. The Company maintained that, with the completion of proposed treatment facilities to meet the regulations, the effluent would create no measureable difference to the existing water quality of Reed Lake existing under the discharge conditions whereby the discharged water would return to the Lake through a swampy land area which would provide additional natural purification. It was noted at the hearing that the mine was located in the Grass River Provincial Park, where water quality was of special significance.

With respect to the Flin Flon metallurgical complex, the Company had an ongoing program to improve effluent quality to meet the requirements of the Federal guidelines. Aside from zinc levels, the Company gave assurance that the Federal quality guidelines would be met. The Company explained its difficulty in meeting zinc levels in times of unusually high precipitation or spring run-off events, which resulted in the reduction of the pH of the tailings pond and caused dissolution of additional zinc from the pond sediment. This gave rise to occasional zinc levels that exceeded the guideline limit. The Company intended to improve control of the tailings residue pond by raising dyke levels and improving pond regulating structures and pH control facilities. Representatives of the Environmental Management Division and the United Steelworkers of America requested assurance that the federal guidelines would be met, as a result of the measures to be undertaken by the Company. It was noted that such action would continue to improve the condition of the receiving water into which the pond effluent was discharged.

At year end, both of the foregoing Hudson Bay Mining and Smelting matters were still under consideration by the Commission and orders had not been issued with respect to either operation.

Two major municipal sewage treatment systems were the subject of review by the Commission during 1983. The first of these was the City of Brandon. The Commission had issued an order concerning the City's sewage system in November 1982. The order required the City to meet interim and final limits for BOD, suspended solids, and faecal coliforms discharged to the Assiniboine River. Final limits were to be achieved by August 1, 1986. The order also required a study to be carried out with a view to determining the impact of ammonia and chlorine in the sewage effluent on the Assiniboine River and to examine methods to control overflows of raw sewage. The study was to include recommendations to ameliorate adverse impacts on the river. Such studies were to be undertaken by the City of Brandon in cooperation with the Departments of Environment and Natural Resources. Following the issuance of the order, the Commission received notification that these two departments would be unable to support a major contribution to these studies and the City of Brandon submitted a request to the Commission to vary the order by waiving the requirement for these studies. At a hearing held by the Commission in March to consider the variation request, the Environmental Management Division submitted testimony reaffirming a need to regulate ammonia in the effluent. The hearing was adjourned to permit the City to further consider this proposal. The City submitted a consultant's report in mid-year concerning the control of ammonia, disinfection of sewage effluent, an assessment of the existing facilities, and a cost analysis of the waste treatment program. The Commission was expected to reconvene the hearing, following departmental review of the consultant's report, early in 1984.

The Portage la Prairie sewage treatment facility was also reviewed at a public hearing held by the Commission in May 1983. The Portage system had been the subject of orders issued in 1976 and 1978 which had established March 1982 as the date for compliance with secondary sewage treatment effluent limits. Following the issuance of the order in 1978, the City of Portage la Prairie installed a deep shaft sewage treatment plant. During the same period, the organic load from the sewage system of the City increased as a result of expanded industrial activity. This increased load resulted in compliance difficulties and a request was submitted to the Commission to vary the order to provide additional time for the upgrading of facilities. At the hearing, officials expressed the willingness of the City to proceed with such studies as might be necessary to fully delineate the problem and to construct such additional facilities as might be necessary. The order issued by the Commission required the City to file a proposal for a new facility by August 31, 1984, and established a new compliance date of February 28, 1986, for the coming into force of secondary sewage treatment effluent limits. Until the new facilities are operational the order prohibits the City from further expansion of its total industrial wastewater load.

Investigations Conducted

Two investigations were carried out by the Commission during 1983. The first of these originated with an appeal to the Minister by the Municipal Council in the Rural Municipality of Rockwood which had been in receipt of a series of complaints from residents in the unincorporated village of Balmoral concerning two neighbouring intensive livestock operations. Following receipt of this complaint, the Minister requested the Commission to investigate this matter. The Commission held hearings in the Municipal Hall at Balmoral in July and August. The evidence received at the hearings confirmed that a land subdivision, carried out by the CPR in Balmoral near the turn of the century, had resulted in the development of a land use conflict during the last several years. A number of nonfarm residences were located in close proximity to an intensive pork and an intensive beef production operation. Complaints had increased in recent years due principally to an expansion of the two livestock operations which had coincided with increasing sensitivity and awareness of the nonfarm residents to the odours and other nuisance problems that unavoidably accompany livestock production operations. The Commission submitted its report and recommendations to the Minister and this report was subsequently distributed to interested parties and government departments. One solution considered was an abatement project under The Clean Environment Act. This was unacceptable to the Municipality for reasons of cost. A main thrust of the report was to stress the obvious and pressing need for land use planning and regulation to prevent the development of similar situations in the future. Amendments to the existing regulations under The Clean Environment Act, respecting livestock production operations, were also recommended to enable environment officers to exercise some control over the development of such situations in the absence of adequate municipal planning regulation. Additional comment on environmental land use conflict, typified by the situation at Balmoral, is contained later within the "State of the Environment" section of this report.

The second investigation conducted by the Commission involved the commencement of a program related to the development of a hazardous waste management system for Manitoba. This investigation, which is discussed in greater detail later in this report, was carried out at

the Minister's request with hearings being held in December in Dauphin and Flin Flon. Additional hearings at five other Manitoba locations were scheduled early in 1984 following which a report was to be prepared for the Minister.

Orders Issued

As a result of its operations during 1983, the Commission issued 50 orders under the provisions of The Clean Environment Act prescribing limits, terms and conditions on the release, discharge or deposit of contaminants to the environment. Details of these orders are given in Appendix "B". The operations for which orders were issued in 1983 can be classified as follows:

1. Heavy Industry	3
2. Medium Industry	4
3. Light Industry	3
4. Grain and Feed Mills	3
5. Mining and Smelting	4
6. Pest and Weed Control	19
7. Sewage Treatment	14
TOTAL	50

Of the orders listed above, 31 (62%) deal principally with the control of contamination of the air while 19 (38%) were issued mainly for problems of water pollution control.

State of the Environment

State of the Environment

As stated in previous reports, Manitoba has a relatively clean environment. In addition to environmental vigilance, a reason for this is the fact that, apart from the Winnipeg area, the population density is low as is the degree of industrialization. This should not lessen the concern, however, both from sources within Manitoba and from outside. Problems such as acid rain and the Garrison Diversion project are a reminder that we are part of a larger ecosystem and sources of pollution outside our boundaries can impact our environment.

Scope

Section 11(1)(d) of The Clean Environment Act requires that the Commission shall prepare and submit to the Minister an annual report not only related to matters dealt with by the Commission, but including a review of the state of the environment.

A comprehensive report on the state of the environment is most desirable albeit the problem still remains that an undertaking to establish a base line position with respect to analytical data on air, water, and land would be necessary. Beyond that would be a requirement to maintain current analytical data on all aspects of the environment to enable the establishment of air, water, and land quality trends. This is a major undertaking with a necessity for large investments of funds to enable such a program and is beyond the present capability of the Commission. As a first step, it might be possible for departmental representatives to examine existing data in order to identify environmental effects and establish trends.

In the absence of such a program as noted, the Commission's comments will address aspects of the environment that have come to its attention throughout the year and a number that have been reported in the press and technical literature that both relate to the environment in Manitoba and have consequences for Manitobans.

Air

A series of spills and near spills during the spring of 1983 gave rise to concerns related to ammonia. During that season of the year, a large number of pressurized tank trailers, trucks, and rail cars deliver anhydrous ammonia for use in fertilizing agricultural land. Five incidents involving overturned tanks were reported in southwestern Manitoba during a period of a few days. In Ninette, a tanker loaded with anhydrous ammonia overturned on the main street of the village. As in other such incidents members of the volunteer fire brigade attended the scene together with an accident response team from Simplot Chemical Company Ltd. The overturned trailer and the anhydrous ammonia it contained were appropriately dealt with and no problems related to human health were reported. However, anhydrous ammonia can be hazardous to human health if encountered in heavy concentrations (over 1000 ppm). Concern was expressed by Simplot officials and by municipal authorities regarding safety requirements on the part of those responsible for transporting this fertilizer product in close proximity to settled areas.

The use and control of insecticides throughout Manitoba continued to be a contentious matter in 1983. The provincial Minister of Health again found it necessary to declare a health emergency arising from a danger of epidemic conditions developing for western equine encephalitis. This declaration was issued following confirmation by the monitoring system that the vector mosquito species were developing in exceptionally large numbers as a result of ideal conditions of moisture and high temperatures throughout the spring. These indications were further confirmed by high counts of mosquitoes being trapped and by blood tests on sentinel flocks of chickens maintained for this purpose at sixteen locations throughout the province. Following the declaration of the health emergency, the government announced its intention to curb the outbreak of an epidemic by spraying the insecticide malathion from aircraft over designated population areas in southern Manitoba. A main difficulty with threatened western equine encephalitis outbreaks is that, because of the extended development period, preventive action must be taken prior to the development of any human cases of the disease if an epidemic is to be avoided. A considerable amount of controversy developed as a result of this widespread use of chemical insecticides. While a certain number of cases of the disease were encountered, a widespread epidemic did not take place. A high level of mortality of mosquitoes resulting from aerial spraying operations was recorded, based on the monitoring system utilized. The Environment Minister also appointed a special citizens' committee to monitor all aspects of the W.E.E. aerial spray program and make recommendations in this regard. In addition, an interdepartmental committee, with representatives from Environment, Health, Agriculture, and Government Services was appointed to study the entire W.E.E. prevention program and make recommendations.

Throughout the 1983 program, the government of Manitoba, in co-operation with Environment Canada, carried out an extensive monitoring program to determine the efficacy of insecticide use as well as its impact on nontarget species and to ascertain whether there had been any effects on human health.

Measures undertaken to control the normal nuisance and other effects of biting mosquitoes are not in the same category as those considered necessary to prevent a threatened epidemic. Heretofore, this use of insecticides by municipal authorities and government departments has either been subject to regulation and control by orders issued by The Clean Environment Commission or to the submission of environmental impact statements to the Environment Department under terms of The Clean Environment Act. During the spring of 1983, the Minister then responsible announced that the government intended to develop a new regulation for the control of municipal insecticide applications which might include the introduction of a permit system.

The year 1983 saw the continuation of a program begun a year earlier for the collection, decontamination, and disposal of the pesticide containers used by Manitoba farmers each year the number of which is in the order of five hundred thousand. Widespread attention was given in the province's rural newspapers to the hazards of improper disposal of this large number of pesticide containers. This information encouraged agricultural producers to rinse and properly handle such containers. Many municipalities designated a collection area for such containers. The containers were crushed and recycled or deposited in authorized landfill sites while the pesticide residue collected was disposed of in an approved manner.

Water

Over one-third of the orders issued by the Commission during 1983 were intended to control activities that might contaminate bodies of water in the province. Of these operations, fourteen related directly to the treatment of municipal sewage. Sewage lagoons provide the principal means of treatment for wastewater by a majority of the smaller communities in Manitoba. Advantages of these systems include the fact that their operation is spontaneous, requiring only retention of the wastewater in engineered ponds of appropriate depth and size.

The Commission was aware of expressions of concern by departmental representatives that, because of questionable construction techniques, a number of lagoons serving Manitoba's communities were permitting the seepage of quantities of liquid onto adjacent agricultural land. There was also some concern with respect to seepage to groundwater. After considerable previous discussion relating to this problem, members of the Commission, in company with segments of the interested engineering community and departmental officials, attended a seminar conducted by the Winnipeg Branch of the Canadian Geophysical Society at the University of Manitoba in the spring of 1983. The seminar provided an appropriate occasion for the critical review of a large number of factors affecting seepage rates from waste treatment ponds, means of overcoming related problems, and discussions concerning the regulation of the design rates for seepage being recommended for use in Manitoba.

During 1983, the Town Council of Selkirk, Manitoba, decided that it would seek assistance from the Courts to compel the City of Winnipeg to achieve a higher level of sewage treatment with a view to improving the quality of the Red River downstream of Winnipeg. Also, during the year, the federal, provincial and city governments announced a program to undertake trials at the City's Southend Water Pollution Control Centre to conduct research and assess the impact of sewage effluent disinfection. These events, together with hearings held in Portage la Prairie and Brandon, drew the Commission's attention to the fact that none of the sewage treatment facilities serving the largest population centres in Manitoba — Brandon, Portage la Prairie, Thompson, and Winnipeg — comply with the water pollution control guidelines normally used by the Commission in establishing legally enforceable limits applicable to sewage treatment facilities.

The Garrison Diversion project in North Dakota continued to be a subject of concern. Intense opposition continued in Manitoba at both a formal government level and a citizen organization level; however, the United States government continued to allocate funds for work on this project.

In another matter related to surface water quality, the Manitoba Environment Minister announced that fish taken from rivers in the southern part of the province should be consumed in moderation as they contained levels of mercury up to 2.2 parts per million, well in excess of the 0.5 parts per million limit permitted for commercial sale. In the same vein, it was noted that studies continued on the impact on human health of mercury found in fish in the Churchill River diversion. This study was also to address the origins of the mercury contamination.

The Commission also noted that Manitoba Hydro had submitted to the Thompson City Council its environmental assessment report on the possible location of power generating dams along the Burntwood River system. In submitting its report, Hydro stated that, due to overcapacity in its generating system, it did not contemplate development of additional generating capacity on the Burntwood River in the immediate future.

Discussion continued on a large number of prospective waterworks improvements relating to Dauphin, Emerson, Morris, Dominion City, as well as Neepawa, Stonewall, and other locations.

Unresolved at the end of the year, were problems affecting approximately twenty-five residents in the vicinity of Lac du Bonnet where testing carried out during 1983 had established that levels of uranium and radium 226, exceeding drinking water guidelines, were present in well water. Tests were continuing at year end. It seems very likely that the contaminants were occurring naturally from the PreCambrian rock in the area. It was hoped that a water treatment system could make the water safe for human consumption.

Land

Throughout 1983, activities of the Government of Manitoba were directed toward the development of control programs relating to the handling and use of dangeous goods. Legislation in this field was subject to earlier delays arising from the necessity of making Manitoba laws compatible with federal legislation and with activities for the definition and description of dangerous goods which were taking place at the United Nations. During the year, the government introduced in the legislature a draft of a bill for the handling of dangerous goods which, following full public participation, discussion and further amendment, would be dealt with at a subsequent session of the legislature. In this connection, environment department officials conducted a series of regional meetings to stimulate discussion and the development of suggestions for amendments.

The first phase of a program to develop a hazardous waste management program for the province also commenced during 1983. The program, as announced by the Minister, was to be initially divided into three phases. The first of these phases to consist of a series of activities designed to increase public awareness at a number of levels by increasing the flow of information to the public and by providing a forum for the expression of opinions and concerns by people living in Manitoba. Phase I of the program was commenced early in 1983 by the appointment of a nongovernmental steering committee to organize a hazardous and special waste symposium. The symposium, held in Winnipeg in March, was attended by a large number of interested persons representing business and industry, unions, and private organizations, as well as municipalities and provincial and federal government departments. The seminar heard distinguished visiting speakers from Europe and the United States as well as Canada. A series of workshops were held that provided the principal focus for public input. The symposium resulted in a report to the Minister containing a number of general recommendations about hazardous and special waste management as follows:

1. more detailed study of the existing hazardous waste problem with more public participation in decision-making and full access to government information;
2. legislation and immediate action in developing interim storage facilities;
3. the formation of a hazardous waste crown corporation, a public advisory board and satellite organizations;
4. a need for the provincial and federal governments to conduct a low level radioactive waste symposium in Manitoba.

As part of Phase I of the program concerning hazardous waste management, The Clean Environment Commission commenced a series of hearings toward the end of the year. The hearings were to provide an opportunity for public consideration of the definitions of the terms of reference for the ownership and operation of any hazardous and special waste management system and facility. The first two of these hearings were held in Dauphin and Flin Flon. This series of hearings was scheduled to continue early in the new year following which a report was to be submitted by the Commission to the minister responsible.

In another program related to hazardous wastes, the Department of Environment, in cooperation with federal authorities, had carried out a survey to compile an initial inventory of active and inactive waste disposal sites in Manitoba. Some two hundred sites were identified by the study and classified with regard to site sensitivity based on potential environmental problems. As a result of this initial inventory, twenty-two sites were selected for further investigation based on criteria such as size, location, waste volume and type. During 1983, eight of these sites were subject to further investigations carried out by consultants under contract to the government while an additional fourteen sites were further investigated by governmental personnel. One of the problems being investigated was the potential for methane gas generation caused by materials buried at these sites in previous years. The information developed by these investigations was expected to form the basis for future rehabilitation plans relating to these former waste disposal sites.

A problem that related to the pollution of both the land and the air was the continuing use of tetra-ethyl lead in automobile fuel. Early in the year, a two year federal health department study recommended reducing the lead content of gasoline where feasible. This report indicated that twenty percent of the lead encountered in

human blood, and sixty-two percent of the lead found in the air originated from automobile traffic. Early in the year, The Honourable John Roberts, then Minister of Environment for Canada, announced that the federal standards for lead content in gasoline would be tightened. Strict regulation was necessary to safeguard the health of people and especially of children. He announced a series of consultations with industry and with the other governments in Canada. Meanwhile, in Manitoba, a study concluded that the lead deposits found in soil adjacent to heavily travelled automobile routes and to secondary lead smelters originated mainly from automobile emissions. A second part of a clean up took place in 1983 at Weston School where soil had previously been removed. Lead emissions from a nearby smelter had been considered to be a possible contributing factor. An additional seven schools, near high traffic roads, were identified as sites having a potential for elevated lead levels in the soil.

Land Use Conflicts

A number of environmental problems referred to The Clean Environment Commission are revealed, on further information and examination, to represent primarily conflicts in the use of land, mainly resulting from poor or nonexisting land use planning. A classical case of land use conflict came to the Commission's attention when the Minister requested an investigation of a matter filed by the Rural Municipality of Rockwood. The municipality had received complaints from citizens of Balmoral relating to odours and other concerns surrounding two livestock production operations located in close proximity to nonfarming residences in the community. This case was discussed earlier in this report.

Another land use conflict was encountered by the Commission regarding the operation of the Manitoba Sugar Company plant in the Fort Garry region of the City of Winnipeg. In this instance, the Commission was requested by the Environmental Management Division to review an existing order issued to the Company. The Division had received a number of complaints of odours, particularly during the spring and summer of 1983. The background of the problem, as described at the Commission's hearings, indicated that, when the Company had built its plant in Fort Garry in the 1940's, there had been no residential construction within approximately two kilometres of the plant site. Officials of the City of Winnipeg described to the Commission how residentially zoned development areas had been approved under the jurisdiction of the Town of Fort Garry and later under the jurisdiction of the Metropolitan Corporation of Winnipeg and the City of Winnipeg, with the result that major residential development occurred on three sides of the sugar beet plant. The Commission's hearing in August of 1983 was adjourned for the purpose of permitting the Company to review its position and the recommendations of the Environmental Management Division which were revised during the hearing. A report from the Company was received, as requested, prior to the end of November, addressing technical and economic aspects of the matter. The hearing was scheduled to reconvene early in 1984.

A further aspect of land use which was drawn to the Commission's attention during 1983 was the location of public utility installations — in particular waste water treatment facilities. The purpose of The Clean Environment Act in having the Commission review such operations is to provide orders for the control of pollution by prescribing limits, terms and conditions on emissions to the environment. The Act does not give the Commission jurisdiction to review the locations where the owners plan to build and operate their industrial or utility installations. While the Commission has a clear responsibility to advertise these operations and to ensure public participation in the process of environmental regulation, the location of such facilities is already determined at the time the Commission hearings are held.

A number of complaints were received by the Commission from owners of properties located near proposed sewage facilities or sewage effluent drainage routes whose first knowledge of such construction is claimed to be the Commission's advertisement of its intention to make an order. People affected by such developments are frustrated by the process whereby public notification is given by the Commission after the owner has already purchased land and is fully committed to a specific location where the facility will be installed. In this regard, the Commission held discussions with those responsible for planning the installation of municipal waterworks, notably the staff of The Manitoba Water Services Board, with a view to encouraging the provincial and municipal authorities to advertise more widely and effectively in advance the proposed locations of major municipal public works facilities. In this way, and perhaps by additional individual notification of some key property owners, it may be possible to avoid the complaints heard in the past concerning the Commission's lack of jurisdiction to influence the pre-selected location of facilities being proposed by municipal or other governmental authorities.

Regulations under The Clean Environment Act

Regulations under The Clean Environment Act

1973 **February 13, 1973 – Manitoba Regulation 34/73,**
as amended by M.R. 6/76, respecting Livestock Production Operations. Any person operating or intending to operate a livestock production operation is not required to file a proposal or register as provided for in subsections 14(1) and 14(4) of The Clean Environment Act.

1974 **June 27, 1974 – Manitoba Regulation 156/74,**
as amended by M.R. 161/75, M.R. 26/78, and M.R. 118/79, respecting Pesticides. Any person intending to apply pesticides is not required to file a proposal as provided for in subsection 14(1) of The Clean Environment Act provided there is compliance with Section 2 of this regulation.

1974 **October 22, 1974 – Manitoba Regulation 259/74,**
respecting Litter.

1974 **December 31, 1974 – Manitoba Regulation 334/74,**
respecting Incinerators. Any person intending to construct or operate a new incinerator is not required to file a proposal as provided for in subsection 14(1) of The Clean Environment Act.

1975 **June 15, 1975 – Manitoba Regulation 120/75,**
respecting Liquid Effluent Discharges from Pulp and Paper Mills. Any person operating or intending to operate a pulp and paper mill is not required to file a proposal or register as provided for in subsections 14(1) and 14(4) of The Clean Environment Act with respect to liquid effluent discharges from the mill.

1975 **August 22, 1975 – Manitoba Regulation 174/75,**
respecting the Treatment of Trees Found to have Dutch Elm Disease, whereby the government departments, Crown corporations or municipal corporations intending to set into operation a program to fulfill the requirements of Manitoba Revised Regulation P90-R2 under The Plant Pests and Diseases Act are not required to file a proposal as provided for in subsection 14(1) of The Clean Environment Act.

1976 **January 26, 1976 – Manitoba Regulation 18/76,**
respecting the Disposal of Whey. Any person discharging or disposing of whey from a dairy manufacturing plant is not required to file a proposal or register as provided for in subsections 14(1) and 14(4) of The Clean Environment Act with respect to liquid effluent discharges from the mill.

1976 **September 20, 1976 – Manitoba Regulation 208/76,**
respecting Waste Disposal Grounds. Any person operating or intending to operate a waste disposal ground is not required to file a proposal or register as provided for in subsections 14(1) and 14(4) of The Clean Environment Act.

1977 **July 13, 1977 – Manitoba Regulation 140/77,**
respecting Discharges to the Air from Secondary Lead Smelters. Any person operating or intending to operate a secondary lead smelter is not required to file a proposal or register as provided for in subsections 14(1) and 14(4) of The Clean Environment Act with respect to emissions of particulate matter and lead particulate matter from the smelter.

1977 **July 19, 1977 – Manitoba Regulation 145/77,**
whereby the Minister declared portions of lands in the Local Government District of Fisher as a Critical Area for the purposes of the Storage and Handling of Gasoline and Associated Products Regulation.

1978 **June 26, 1978 – Manitoba Regulation 115/78,**
whereby the Minister declared portions of lands in the Rural Municipality of Victoria as a Critical Area for the purposes of the Storage and Handling of Gasoline and Associated Products Regulation.

1980 **June 27, 1980 – Manitoba Regulation 112/80,**
respecting Campgrounds.

1980 **September 3, 1980 – Manitoba Regulation 156/80,**
respecting the Storage and Handling of Gasoline and Associated Products. Any person operating or intending to operate a storage tank system is not required to file a proposal or register as provided for in subsections 14(1) and 14(4) of The Clean Environment Act. This regulation repeals Manitoba Regulations 148/76, 42/77, and 246/77.

1980 **September 16, 1980 – Manitoba Regulation 165/80,**
respecting The City of Winnipeg Amy Street Heating Plant located at 21 Amy Street, Winnipeg, Manitoba. This regulation postponed to September 1, 1985, the imposition of the stated air pollution control limits.

1981 **January 7, 1981 – Manitoba Regulation 15/81,**
respecting the designation of certain substances as Hazardous Materials.

1981 **March 27, 1981 – Manitoba Regulation 85/81,**
respecting Private Sewage Disposal Systems and Privies. Any person operating or intending to operate a private sewage disposal system with a sewage flow of less than 14,000 litres of sewage per day is not required to file a proposal or register as provided for in subsections 14(1) and 14(4) of The Clean Environment Act. This regulation repeals Manitoba Regulation 242/76.

1983 **July 19, 1983 – Manitoba Regulation 155/83,**
whereby the Minister of Health declared that an emergency health situation did exist with respect to disease which may be transmitted to any person in Manitoba either directly or indirectly through or by mosquitoes.

1983 **July 19, 1983 – Manitoba Regulation 156/83,**
whereby the Minister permitted the Crown and any municipality authorized by the Minister of Health or his Acting Deputy to apply insecticides against mosquitoes and their eggs and larvae during the time of the emergency health situation.

1983 **November 3, 1983 – Manitoba Regulation 222/83,**
whereby the Minister of Health revoked the declaration of an emergency health situation filed as Manitoba Regulation 155/83.

1983 **November 3, 1983 – Manitoba Regulation 223/83,**
whereby the Minister revoked the permit to permit the application of insecticides against mosquitoes filed as Manitoba Regulation 156/83.

APPENDIX A

PUBLIC HEARINGS HELD

Appendix A
Public Hearings – 1983

Hearing Number	Date	Subject	Location
H-01-83	83/01/24	Regarding Elmer Neufeld to consider a proposal for the operation of a plant, located in the SW¼ of Section 31, Township 9, Range 4 EPM, for the recovery and purification of industrial solvents — primarily acetone — with disposal of approximately 114 litres (25 gallons) per week of unusable residue to authorized City of Winnipeg landfill facilities.	Winnipeg
H-02-83	83/03/10	Regarding Steel Brothers Canada Ltd. to consider the variation of all or part of Order No. 259VC issued in connection with the operation of a limestone and dolomite crushing plant located at 580 Pembina Highway, Winnipeg.	Winnipeg
H-03-83	83/03/14	Regarding the Village of MacGregor to consider the variation of all or part of Order No. 763 issued in connection with the operation of a sewage lagoon located in the SE¼ of Section 4, Township 12, Range 10 WPM in the Rural Municipality of North Norfolk, with discharge of effluent to Beaver Creek.	MacGregor
H-04-83	83/03/15	Regarding the Town of Winnipeg Beach to investigate complaints and ascertain compliance with Order No. 314 issued in connection with the operation of a sewage lagoon system located in the NE¼ of Section 34, Township 17, Range 4 EPM in the Rural Municipality of St. Andrews with discharge of effluent to Lake Winnipeg.	Winnipeg Beach
H-05-83	83/04/20	Regarding the City of Brandon to consider the possible variation of Order No. 965 issued in connection with the operation of sewage treatment facilities with discharge of effluent to the Assiniboine River.	Brandon
H-06-83	83/04/21	Regarding the City of Brandon for a program to control mosquito larvae and pupae in designated portions of the Rural Municipalities of Elton, Cornwallis, and Daly and the City of Brandon.	Brandon
H-07-83	83/04/29	Regarding Riverside Gravel Company Limited for the operation of a limestone quarry with crushing and screening of aggregate, located in part of the NW¼ of Section 4, Township 14, Range 2 EPM, in the Rural Municipality of Rockwood, with a potential for emissions of noise and vibrations from blasting and of dust and sound from other quarry operations.	Stonewall
H-08-83	83/05/09	Regarding the City of Portage la Prairie to consider a possible variation of Order No. 537VC issued in connection with the operation of sewage treatment facilities with discharge of effluent to the Assiniboine River.	Portage la Prairie

Hearing Number	Date	Subject	Location
H-09-83	83/05/17	Regarding Plains Processors Ltd. to consider a possible variation of Order No. 917 issued in connection with the operation of an abattoir for the slaughtering of horses and bison located in the SW¼ of Section 18, Township 7, Range 4 WPM, in the Rural Municipality of Dufferin with disposal of blood and manure to agricultural land and of sanitary wastes and contaminated cleaning water to a sewage lagoon located on the plant property.	Carman
H-10-83	83/05/25	Regarding Manitoba Hydro for a program to control mosquitoes, blackflies and other biting flies using the chemical insecticide Baygon MOS in Sundance townsite and Limestone construction camp.	Sundance
H-11-83	83/06/08	Regarding the Rural Municipality of Macdonald to consider the possible variation of Order No. 954 issued in connection with the operation of a sewage lagoon located in the SW¼ of Section 27, Township 8, Range 2 EPM serving the unincorporated village of La Salle with discharge of effluent via a ditch to the La Salle River.	Winnipeg
H-12-83	83/06/08	Regarding the Rural Municipality of Brokenhead to consider the possible variation of Order No. 941 issued in connection with the operation of a sewage lagoon located in the NW¼ of Section 11, Township 13, Range 6 EPM serving the unincorporated village of Tyndall with discharge of effluent via a ditch to Devil's Creek.	Winnipeg
H-13-83	83/06/08	Regarding the Local Government District of Alexander to consider the possible variation of Order No. 953 issued in connection with the operation of a sewage lagoon located in the River Lot 10, Township 18, Range 10 EPM serving the unincorporated village of St. Georges with discharge of effluent via ditches to the Winnipeg River.	Winnipeg
H-14-83	83/06/16	Regarding the Rural Municipality of Strathclair in connection with the continued operation of an existing sewage lagoon located in Parcel A-5414 in the SW¼ of Section 35, Township 16, Range 22 WPM serving the unincorporated village of Strathclair with discharge of effluent via ditches to North Salt Lake.	Strathclair
H-15-83	83/06/17	Regarding Simplot Chemical Company, Ltd. to consider the possible variation of Order No. 834VC issued in connection with the operation of a chemical fertilizer manufacturing plant located in the SW¼ of Section 18, Township 10, Range 18 WPM in the City of Brandon with discharge of effluent for the irrigation of cropland and to the Assiniboine River.	Brandon
H-16-83	83/06/27	Regarding Abitibi-Price Inc., at the request of the minister responsible, to receive new evidence concerning emissions of noise, dust and	St. Georges

Hearing Number	Date	Subject	Location
		particulate matter to the atmosphere from the operation of a paper mill located in Section 25, Township 18, Range 9 EPM at Pine Falls.	
H-17-83	83/07/26	Regarding Simplot Chemical Company, Ltd. at the direction of the Minister to investigate progress being made in achieving compliance with Order No. 871VCO issued in connection with the operation of a chemical fertilizer plant located in the SW¼ of Section 18, Township 10, Range 18 WPM in the City of Brandon with emission of ammonia gas to the atmosphere.	Brandon
H-18-83	83/07/25	Regarding an investigation into the possible land use conflicts and land use planning deficiencies in connection with the location of residential areas in close proximity to livestock production operations at or near Balmoral with particular reference to the Stanley & Sharon Fox, feedlot operation located in Section 7, Township 15, Range 2 EPM, and the John & Dale Fox, Makin' Bacon piggery operation located in the NW¼ of Section 6, Township 15, Range 2 EPM. Residents of Balmoral had complained of odours and other possible pollutants from these operations.	Balmoral
H-19-83	83/08/23	Regarding Manitoba Sugar Company to investigate compliance with and the possible variation of Order No. 735 issued in connection with the operation of a beet sugar factory with wastewater treatment and settling ponds located in parts of River Lots 18, 19, 20, 21, and 22 in the Parish of St. Vital, as shown on Plan 3219, in the City of Winnipeg. Residents of Fort Garry had complained of odour emissions to the atmosphere.	Winnipeg
H-20-83	83/08/29	Regarding Border Grain Co. Ltd. to consider a proposal for the operation of a plant, located on Lot 1, Plan 375, in the Village of Gretna, to clean cereal grain and field peas with emissions of noise, dust and particulate matter to the atmosphere.	Gretna
H-21-83	83/08/29	Regarding Gretna Feed and Seed Company Limited to consider a proposal for the continued operation of a plant, located on the CPR right-of-way in the Village of Gretna, for the handling, processing, pelletizing, and storage of feeds with emissions of noise, dust and particulate matter to the atmosphere.	Gretna
H-22-83	83/10/14	Regarding the Rural Municipality of Ritchot to consider a proposal for the operation of a new sewage lagoon serving the unincorporated village of St. Adolphe, the lagoon to be located in part of River Lot 240 in the Parish of St. Norbert in the said Municipality, with discharge of treated effluent into the St. Adolphe Coulee with eventual drainage to the Red River.	St. Adolphe

Hearing Number	Date	Subject	Location
H-23-83	83/11/08	Regarding Hudson Bay Mining and Smelting Co., Limited to consider a proposal for the operation of a copper and zinc mine located on the south shore of Reed Lake at M.C.'s Reed 19 and 28 (P.4414E, P.4423E) part of E.A.L. 26, Lot 46, Group 371 in Township 64, Range 20 WPM in the Grass River Provincial Park, with discharge of liquid effluent to swamps south of PTH 391, with eventual drainage to Reed Lake. The order to be issued following the hearing will replace order No. 870, issued in 1980 for the development phase of the operation.	Flin Flon
H-24-83	83/11/09	Regarding Hudson Bay Mining and Smelting Co., Limited to consider a proposal for the continued operation of a copper-zinc mining and smelting complex located in the E½ of Section 1, Township 67, Range 30 WPM in the Province of Saskatchewan, and in the W½ of Section 6, Township 67, Range 29, in or near the City of Flin Flon, Manitoba, with discharge of tailings and liquid effluent into the Flin Flon Lake tailings area and with effluent drainage via Flin Flon Creek to Ross Lake, Ross Creek and Schist Lake.	Flin Flon
H-25-83	83/11/28	Regarding Simplot Chemical Company Ltd. to review the environmental order issued for the continued operation of a chemical fertilizer manufacturing plant located in the SW¼ of Section 18, Township 10, Range 18 WPM in the City of Brandon, with emission of ammonia gas to the atmosphere.	Brandon
H-26-83	83/12/02	Regarding Inco Limited in connection with the possible variation of Order No. 960 issued in connection with the operation of a nickel smelter-refinery and mining complex, including the preparation and operation of an open pit mine, all located in the Local Government District of Mystery Lake, at or near Thompson, and, in particular to consider a request by the operator to vary the limit prescribed on the nickel content of the effluent being discharged from the said operation into the Burntwood River from December 1, 1983, to May 1, 1984.	Thompson
H-27-83	83/12/05	Regarding Hazardous and Special Wastes to determine what components are required for a successful management system, how the system should be operated, funded, enforced, and what role recycling should play in special waste management.	Dauphin
H-28-83	83/12/12	Regarding Hudson Bay Mining and Smelting Co., Limited, at the request of the Minister responsible for the environment, in connection with the continued operation of a copper-zinc mining and smelting complex located in the E½ of Section 1, Township 67, Range 30 WPM in the Province of Saskatchewan, and in the W½ of Section 6, Township 67, Range 29, in or near	Flin Flon

Hearing Number	Date	Subject	Location
		the City of Flin Flon, with emission of combustion and process gases containing sulphur dioxide, particulates, and other substances.	
H-29-83	83/12/14	Regarding Hazardous and Special Wastes to determine what components are required for a successful management system, how the system should be operated, funded, enforced, and what role recycling should play in special waste management.	Flin Flon

APPENDIX B

LIST OF ORDERS ISSUED

Appendix B
Orders Issued in the Calendar Year 1983

A. Orders Resulting From Applications

1.	Order No. 972 — Issued to Elmer Neufeld, Esquire, in connection with an operation for the recovery and recycling of industrial solvents to be located in the SE¼ of Section 31, Township 9, Range 4 EPM in the Rural Municipality of Ritchot.	January 28
2.	Order No. 973 — Issued to Tantalum Mining Corporation of Canada Limited in connection with the continued operation of a mine-mill complex located in Section 15, Township 17, Range 15 EPM with discharge of effluent into Bernic Lake.	February 7
3.	Order No. 974 — Issued to Heritage Industries Ltd. in connection with the operation of a foundry located on Lots 4 and 5, Block 7, Plan 1289, at or near 200 Pacific Street, in the Town of Winkler.	March 24
4.	Order No. 975 — Issued to the Department of Natural Resources in connection with a program to control mosquitoes by spraying with the chemical insecticide Methoxychlor, using vehicle mounted spray equipment, in Hecla Provincial Park.	March 24
5.	Order No. 976 — Issued to the Town of Neepawa in connection with a program using vehicle-mounted or backpack equipment to spray spruce trees in the Riverside Cemetery in the said Town to control spruce sawflies using the chemical insecticide Malathion.	April 26
6.	Order No. 977 — Issued to the Town of Winkler in connection with a program for the use of the chemical insecticides Dylox and Malathion applied by means of aerial and ground based spraying for the control of mosquitoes, cankerworms and army worms within the Town of Winkler.	May 30
7.	Order No. 978 — Issued to The Manitoba Water Services Board in connection with the operation of a sewage treatment plant to be located in part of Lot 3, Plan 4785 NLTO, in the SW¼ of Section 13, Township 65, Range 3 WPM, serving the Cross Lake Community, with discharge of effluent to the Nelson River.	April 27
8.	Order No. 979 — Issued to the City of Brandon in connection with a program to control mosquito larvae and pupae, using the insecticides Abate 4E and 2G and Flit MLO mineral oil, in the City of Brandon and environs and for the control of adult mosquitoes, using the insecticides Baygon and Malathion, in designated parks and recreational areas within the City of Brandon.	April 29
9.	Order No. 980 — Issued to the Rural Municipality of Macdonald in connection with a program to control mosquitoes in recreational areas at villages and settlements within the Municipality by applying the insecticide Baygon using a vehicle mounted thermal fogger.	May 26
10.	Order No. 981 — Issued to the Local Government District of Consol in connection with a program to control forest tent caterpillars in residential areas by the application of the insecticide Malathion-50EC to trees using aircraft or vehicle mounted equipment within the Local Government District of Consol.	May 26
11.	Order No. 982 — Issued to the Village of Manitou in connection with a program to control elm bark beetles by the application of the insecticide Dursban 2E to the trunks of elm trees using backpack or vehicle mounted equipment in Sections 19 and 30, Township 3, Range 8 WPM of the Rural Municipality of Pembina and in areas within the Village of Manitou.	May 26
12.	Order No. 983 — Issued to the Village of Ste. Anne in connection with a program to control elm bark beetles by the application of the insecticide	May 26

Dursban to the trunks of elm trees using backpack or vehicle mounted equipment within the Village of Ste. Anne.

13. Order No. 984 — Issued to Manitoba Hydro in connection with a program to control mosquitoes, blackflies and other biting flies at the Limestone construction camp in Section 1, Township 87, Range 21 EPM and Sundance townsite in Section 8, Township 87, Range 22 EPM. — June 10

14. Order No. 985 — Issued to Village of Niverville in connection with a program for aerial spraying with the insecticides Dipel and Methoxychlor for the control of cankerworms in the N½ of Section 31 and the N½ of Section 30, in Township 7, Range 4 EPM and Parcel A, Plan 11975 in the SE¼ of Section 36, Township 7, Range 3 EPM in the Rural Municipalities of Hanover and Ritchot and in the Village of Niverville. — June 10

15. Order No. 986 — Issued to the Rural Municipality of Brenda in connection with the operation of a sewage lagoon system located in the NW¼ of Section 2, Township 2, Range 24 WPM serving the unincorporated village of Goodlands with discharge of effluent into a secondary drain with eventual discharge into the Souris River. — June 22

16. Order No. 987 — Issued to Teledyne Canada, Limited in connection with the continued operation of a cupola furnace and related foundry process operations located at or near 54 Archibald Street in the City of Winnipeg. — June 22

17. Order No. 988 — Issued to The Manitoba Water Services Board to deny a request for the variation of Order No. 941 submitted on behalf of the Rural Municipality of Brokenhead concerning the operation of a sewage lagoon system serving the unincorporated village of Tyndall. — June 24

18. Order No. 989 — Issued to The Manitoba Water Services Board to deny a request for the variation of Order No. 954 submitted on behalf of the Rural Municipality of Macdonald concerning the operation of a sewage lagoon system serving the unincorporated village of La Salle. — June 24

19. Order No. 990 — Issued to the Department of Natural Resources in connection with a program to control mosquitoes and blackflies by spraying with the chemical insecticide Malathion, using vehicle mounted spray equipment, in Bird's Hill Provincial Park on ground used for the Winnipeg Folk Festival. — July 5

20. Order No. 991 — Issued to the Town of Neepawa in connection with a program to control elm bark beetles by the application of the insecticide Dursban to the trunks of elm trees using backpack or vehicle mounted equipment within the Town of Neepawa. — August 8

21. Order No. 992 — Issued to Riverside Gravel Company Limited in connection with the operation of a limestone quarry located in the NW¼ of Section 4, Township 14, Range 2 EPM in the Rural Municipality of Rockwood. — August 8

22. Order No. 993 — Issued to the Rural Municipality of Ochre River in connection with a program for aerial spraying with the chemical insecticide Malathion for the control of adult mosquitoes in the unincorporated village of Ochre River. — August 8

23. Order No. 994 — Issued to the Camperville Community Council in connection with a program for aerial spraying with the chemical insecticide Malathion for the control of adult mosquitoes in Lots 1-9, D.L.T.O. and in Sections 4, 5, 6, 7, and 8 in Township 35, Range 19 WPM, Plan 551, D.L.T.O. at or near Camperville. — August 8

24. Order No. 995 — Issued to the City of Thompson in connection with a program for the control of adult mosquitoes using the insecticide Abate 2G in the mosquito larviciding program and by the distribution of the larvicide Pyrethrum Tossit capsules in standing pools of water at mosquito breeding sites in the City of Thompson and the Local Government District of Mystery Lake. — August 8

25.	Order No. 996 — Issued to Rural Municipality of Strathclair in connection with the continued operation of a sewage lagoon system located on Parcel A-5414 in the SW¼ of Section 35, Township 16, Range 22 WPM serving the unincorporated village of Strathclair with discharge of effluent via ditches and sloughs into North Salt Lake.	August 8
26.	Order No. 997 — Issued to Hudson Bay Mining and Smelting Co., Limited in connection with the operation of a zinc and copper mine, known as Trout Lake Mine, located in Section 21, Township 67, Range 29 WPM with discharge of liquid effluent into Flin Flon Creek.	August 15
27.	Order No. 998 — Issued to the Local Government District of Grand Rapids in connection with a program for the control of adult mosquitoes by thermal fogging with vehicle mounted equipment using the insecticide Methoxychlor in parts of Sections 27 and 34, Township 48, Range 13 WPM, in the said Local Government District.	August 29
28.	Order No. 999 — Issued to the Rural Municipality of Roland in connection with the operation of a sewage lagoon system located in the NW¼ of Section 2, Township 5, Range 4 WPM serving the unincorporated village of Roland, with discharge of effluent via a CPR drainage ditch to Graham Drain.	August 29
29.	Order No. 1000 — Issued to the Rural Municipality of Morris in connection with the operation of a sewage lagoon system located in the W½ of Section 5, Township 5, Range 1 WPM serving the unincorporated village of Lowe Farm, with discharge of effluent via an open ditch to Anderson Drain.	August 29
30.	Order No. 1001 — Issued to the Rural Municipality of Morris in connection with the operation of a sewage lagoon system located in the NW¼ of Section 9, Township 6, Range 1 EPM serving the unincorporated village of Rosenort, with discharge of effluent via a local ditch to Goosen Drain to the Morris River.	August 29
31.	Order No. 1002 — Issued to Catalytic Enterprises Limited in connection with the operation of a plant for the manufacture of liquid oxygen by extraction from the atmosphere, the said plant to be located at or near 2230 Main Street in the City of Winnipeg.	September 22
32.	Order No. 1003 — Issued to the Town of Winnipeg Beach in connection with the operation of a five cell sewage lagoon system located in the SE¼ of Section 34, Township 17, Range 4 EPM in the Town of Winnipeg Beach and the NE ¼ of Section 27, Township 17, Range 4 EPM in the Rural Municipality of St. Andrews with discharge of effluent to Lake Winnipeg.	September 27
33.	Order No. 1004 — Issued to the Rural Municipality of Ritchot in connection with the operation of a sewage lagoon system located in River Lots 239 and 240 in the Parish of St. Norbert, serving the unincorporated village of St. Adolphe with discharge of effluent via the St. Adolphe Coulee and the Seine River Diversion to the Red River.	October 19
34.	Order No. 1005 — Issued to the City of Portage la Prairie in connection with a program to control elm bark beetles by the application of the insecticide Dursban to the trunks of elm trees using backpack or vehicle mounted equipment within the City of Portage la Prairie.	October 20
35.	Order No. 1006 — Issued to the Town of Stonewall in connection with a program to control elm bark beetles by the application of the insecticide Dursban to the trunks of elm trees using backpack or vehicle mounted equipment within the Town of Stonewall.	October 20
36.	Order No. 1007 — Issued to the Town of Emerson in connection with a program to control elm bark beetles by the application of the insecticide Dursban to the trunks of elm trees using backpack or vehicle mounted equipment within the Town of Emerson.	October 20

37.	Order No. 1008 — Issued to Gretna Feed & Seed Co. Ltd. in connection with the continued operation of an existing seed cleaning feed mill plant located on the CPR Right-of-way in Section 5, Township 1, Range 1 WPM, at or near 625 Seventh Avenue in the Village of Gretna.	October 20
38.	Order No. 1009 — Issued to Border Grain Co. Ltd. in connection with the operation of a seed cleaning plant located on Lot 1, Plan 375, in the Village of Gretna.	October 20
39.	Order No. 1010 — Issued to IKO Industries Ltd. in connection with the operation of an asphalt shingle and building paper plant located on Block M, Plan 433 in the Parish of St. Boniface, at or near 421 Archibald Street, in the City of Winnipeg.	October 26
40.	Order No. 1011 — Issued to the Rural Municipality of de Salaberry in connection with the operation of a sewage lagoon system located in part of Lot 94 "B", Plan 4825, W.L.T.O., serving the unincorporated village of St. Malo, with discharge of effluent into a provincial drain and eventual drainage into Rat River.	October 28
41.	Order No. 1012 — Issued to Tween Mountain Feed Processors Ltd. in connection with the operation of an oat processing and animal feed sales facility located in the SE¼ Section 24, Township 25, Range 24 WPM in the Town of Grandview.	November 24

B. Orders Varied

1.	Order No. 483VOOO — Issued to Inco Limited, in compliance with Order-in-Council No. 194/83, concerning emission of contaminants to the atmosphere from the continued operation of a smelter complex located on Parcel 3, Drawing Reg. No. NLTO 4745, in Township 77, Range 3 WPM in the Local Government District of Mystery Lake.	March 7
2.	Order No. 871VCO — Issued to Simplot Chemical Company, Ltd., in compliance with Order-in-Council No. 404/83, concerning the operation of a chemical manufacturing plant complex, with emission of contaminants to the atmosphere, located in the SW¼ of Section 18, Township 10, Range 18 WPM in the City of Brandon.	April 20
3.	Order No. 763VC — Issued to the Village of MacGregor in connection with the operation of a sewage lagoon system located in the SE¼ of Section 4, Township 12, Range 10 WPM in the Rural Municipality of North Norfolk, with discharge of effluent via road ditches to Beaver Creek.	April 26
4.	Order No. 537VCC — Issued to the City of Portage la Prairie in connection with the operation of a deep shaft aerated sewage lagoon system located on River Lot 108 in Portage la Prairie Parish in the City of Portage la Prairie with discharge of effluent to the Assiniboine River.	July 11
5.	Order No. 953VC — Issued to the Local Government District of Alexander in connection with the operation of a sewage lagoon system to be located in River Lot 10, Township 18, Range 10 EPM to serve the unincorporated village of St. Georges, with discharge of effluent via ditches to the Winnipeg River.	August 8
6.	Order No. 917VC — Issued to Plains Processors Limited in connection with the operation of an abattoir for the processing of horses and bison located in the SW¼ of Section 18, Township 7, Range 4, WPM in the Rural Municipality of Dufferin with disposal of blood and manure to agricultural land and of sanitary wastes and contaminated cleaning water to a sewage lagoon system located on the plant property with discharge of treated effuent from the lagoon to agricultural land.	August 15
7.	Order No. 834VC — Issued to Simplot Chemical Company Limited in connection with the operation of a chemical fertilizer manufacturing plant located in the SW¼ of Section 18, Township 10, Range 18 WPM in the City of Brandon, with discharge of liquid wastes to irrigate croplands and to the Assiniboine River.	August 15
8.	Order No. 259VCC — Issued to Steel Brothers Canada Ltd. in connection with the operation of a limestone crushing and grading plant located at or near 580 Pembina Highway in the City of Winnipeg, with emission of dust and particulate matter to the atmosphere.	August 19